WHAT IS CLAIMED IS:

1. An electronic commerce method for an agent manufacturing or selling semiconductor products and a purchaser purchasing semiconductor products to conduct an electronic commerce, said method comprising the steps of:

connecting a client terminal used by a purchaser or his or her proxy to a virtual production line so constructed as to simulate production processes in a real production line for manufacturing semiconductor products on a computer;

receiving a purchaser-requested condition for a purchaser-requested product from said client terminal;

simulating realtime whether said purchaser-requested product flows on a virtual production line according to a purchaser-requested condition; and

determining whether a product is manufactured according to a purchaser-requested condition.

2. The electronic commerce method according to claim 1, further comprising the step of:

changing one of said requested conditions to re-simulate realtime whether the product can be manufactured when a product cannot be manufactured according to a purchaser-requested condition as a result of said simulation.

3. An electronic commerce method for an agent manufacturing or selling semiconductor products and a

purchaser purchasing semiconductor products, to conduct an electronic commerce by using a network, said method comprising the steps of:

connecting via network a client terminal used by a purchaser or his or her proxy to a virtual production line so constructed as to simulate production processes in a real production line for manufacturing semiconductor products on a computer;

inputting a purchaser-requested product and conditions from said client terminal and transferring this input information to said virtual production line;

simulating realtime whether a product flows on said virtual production line according to a purchaser-requested condition based on the product and conditions input to said virtual production line;

transferring a simulation result in said virtual production line to said client terminal;

determining whether to effectuate a business transaction from said client terminal in response to a result of said simulation; and

issuing an instruction for manufacturing semiconductor products from said virtual production line to said real production line.

4. An electronic commerce method concerning semiconductor products for a purchaser purchasing semiconductor products to have electronic commerce with an agent manufacturing or selling semiconductor

products by using a network, said method comprising the steps of:

connecting via network a client terminal used by a purchaser or his or her proxy to a virtual production line so constructed as to simulate production processes in a real production line for manufacturing semiconductor products on a computer;

inputting a product to be purchased and conditions thereof from said client terminal;

receiving a result of simulating realtime at said client terminal whether a product flows on said virtual production line according to a purchaser-requested condition based on said input product and conditions; and

responding whether to purchase a semiconductor product from said client terminal in response to said received simulation result.

5. An electronic commerce method concerning semiconductor products for an agent manufacturing or selling semiconductor products to have electronic commerce with a purchaser purchasing semiconductor products by using a network, said method comprising the steps of:

connecting via network a client terminal used by a purchaser or his or her proxy to a virtual production line so constructed as to simulate production processes in a real production line for manufacturing

semiconductor products on a computer;

receiving a product and conditions at said virtual production line input from said client terminal;

simulating realtime whether a product flows on said virtual production line according to a purchaser-requested condition based on the product and conditions transferred to said virtual production line;

transferring a result of said simulation to said client terminal;

determining whether a transaction is effectuated according to a response from said client terminal based on said simulation result; and

issuing an instruction for semiconductor product manufacturing from said virtual production line to said real production line when a transaction is effectuated according to said determination.

6. An electronic commerce system, comprising:

a virtual production line so constructed as to simulate production processes in a real production line for actually manufacturing semiconductor products on a computer; and

a connection server for connecting said virtual production line to a client terminal via a network, wherein:

said connection server transfers conditions input from said client terminal to said virtual production line and transfers to said client terminal a result of

realtime simulation whether a product flows on said virtual production line according to a transferred condition.

7. An electronic commerce system, comprising:

a virtual production line providing a computer with substantially the same functions as for a real production line actually manufacturing products;

first transferring means configured to transfer various information about said real production line to said virtual production line;

computing means configured to compute an optimal lot progress on said virtual production line based on said transferred information;

second transferring means configured to transfer work instruction data based on a result of said computation to said real production line; and

a connection server configured to connect said virtual production line to a client terminal via a network, wherein:

conditions input from said client terminal are transferred to said virtual production line via said connection server transfers; realtime simulation is performed to determine whether a product flows on a virtual production line under transferred conditions; a simulation result is transferred to said client terminal via said connection server; and a transaction is effectuated based on a simulation result.

8. A production system, comprising:

a virtual production line providing a computer with substantially the same functions as for a real production line actually manufacturing products;

receiver configured to receive various information about said real production line by using said virtual production line;

computing means configured to compute an optimal lot progress on said virtual production line based on said received information; and

transferring means configured to transfer work instruction data based on a result of said computation to said real production line.

9. The production system according to claim 8, wherein:

said system realtime and repeatedly receives various information in said virtual production line, computes an optimal lot progress in said virtual production line, and transfers work instruction data from said virtual production line to said real production line.

10. The production system according to claim 8, wherein:

various information transferred from said real production line to said virtual production line includes at least one of an order volume for each production, lot progress situation, apparatus

situation, worker situation, and product test result.

11. The production system according to claim 8, wherein:

said computing means configured to compute an optimal lot progress finds a plurality of lot progress estimate results for each condition of progressing said lot and extracts at least one of said plurality of progress estimate results.

12. The production system according to claim 11, wherein:

said computing means configured to compute an optimal lot progress is provided with means for displaying said plurality of lot progress estimate results found and selecting at least one computation result.

13. The production system according to claim 11, wherein:

said computing means configured to compute an optimal lot progress extracts one or more of said plurality of lot progress estimate results based on user-input extraction condition.

14. The production system according to claim 8, wherein:

said computing means configured to compute an optimal lot progress computes a solution for providing the shortest manufacturing period and the maximum production volume.

15. The production system according to claim 8, wherein:

said computing means configured to compute an optimal lot progress finds a solution according to which a product with a higher priority provides a shorter manufacturing period based on priorities assigned to ordered products.

16. The production system according to claim 8, wherein:

said receiver receives a test result of a product manufactured in said real production line to said virtual production line and said computing means determines the next input schedule by referencing an order volume for the relevant product.

17. The production system according to claims 8 to 16, wherein:

said real production line is a semiconductor production line.

18. The production system according to claim 8, further comprising:

second computing means configured to compute at least one time dependency of electric power and power usage based on said received information, wherein:

said computing means configured to compute an optimal lot progress is based on the time dependency obtained by said second computing means configured to compute the time dependency and compute a lot progress

based on a condition not exceeding at least one of an electric power value and a power usage value specified for the production line.

19. The production system according to claim 18, wherein:

said power usage includes at least one of deionized water, cooling water, semiconductor material gas, semiconductor manufacturing gas, semiconductor manufacturing liquid, and semiconductor manufacturing solid.

20. A manufacturing method of using a virtual production line provided with substantially the same functions in a computer as for a real production line actually manufacturing products, performing simulation in a virtual production line, and enabling efficient operations in a real production line, said method comprising the steps of:

receiving various information about said real production line by means of said virtual production line;

computing an optimal lot progress in said virtual production line based on said received information; and

transferring work instruction data based on a result of said computation to said real production line.

21. The manufacturing method according to claim 20, further comprising the step of:

starting production in said real production line based on said work instruction data.

22. The manufacturing method according to claim 20, wherein:

said method realtime and repeatedly receives various information in said virtual production line from said real production line, computes an optimal lot progress in said virtual production line, and transfers work instruction data from said virtual production line to said real production line.

23. The manufacturing method according to claim 20, wherein:

various information received from said real production line to said virtual production line includes at least one of an order volume for each production, lot progress situation, apparatus situation, worker situation, and product test result.

24. The manufacturing method according to claim 20, wherein:

said step of computing an optimal lot progress computes a solution for providing the shortest manufacturing period and the maximum production volume.

25. The manufacturing method according to claim 20, wherein:

said step of computing an optimal lot progress computes a solution according to which a product with a higher priority provides a shorter manufacturing period

based on priorities assigned to ordered products.

26. The manufacturing method according to claim 20, wherein:

said receiving step receives a test result of a product manufactured in said real production line to said virtual production line and said computing step determines the next input schedule by referencing an order volume for the relevant product.

27. The manufacturing method according to claims 20 to 26, wherein:

said real production line is a semiconductor production line.

28. A production equipment design system, comprising:

a virtual production line providing a computer with substantially the same functions as for a real production line actually manufacturing products;

transferring means configured to transfer various information about said real production line to said virtual production line;

computing means configured to compute at least one time dependency of electric power and power usage based on said transferred information;

determining means configured to determine set at least one of an electric power value and a power usage value used for a production line based on the time dependency obtained by said means for computing the

time dependency; and

designing means configured to design production equipment based on at least one of said determined electric power value and power usage value.

29. The production equipment design system according to claim 28, wherein:

said production equipment is at least one of production line wiring and production line piping.

30. A production equipment design method of designing production equipment by performing simulation in a virtual production line so constructed as to provide a computer with substantially the same functions as for a real production line actually manufacturing products, said method comprising the steps of:

receiving various information about said real production line by means of said virtual production line;

computing at least one time dependency of electric power and power usage based on said received information;

setting at least one of an electric power value and a power usage value used for a production line based on the time dependency obtained by said means for computing the time dependency; and

designing production equipment based on at least one of said determined electric power value and power

usage value.

31. A production equipment manufacturing method of performing simulation in a virtual production line so constructed as to provide a computer with substantially the same functions as for a real production line actually manufacturing products, and manufacturing production equipment based on this simulation result, said method comprising the steps of:

receiving various information about said real production line by means of said virtual production line;

computing at least one time dependency of electric power and power usage based on said transferred information;

setting at least one of an electric power value and a power usage value used for a production line based on the time dependency obtained by said means for computing the time dependency; and

manufacturing production equipment so that at least one of said determined electric power value and power usage value is satisfied.